In re Appln. of Bertin et al.
Application No. 10/765,447
Response to Office Action of November 13, 2008

REMARKS

At the time of the Office Action, claims 1–16 were pending. In the Office Action:

- Claims **1–6 and 13–16** were rejected under 35 U.S.C. § 103(a) as being unpatentable over **Horowitz**, U.S. Patent Application Publication 2004/0078817 in view of **Shoff**, U.S. Patent No. 6,240,555 in further view of **Boyer**, U.S. Patent No. 7,269,838;

- Claims **7–9 and 10** were rejected under 35 U.S.C. 103(a) as being unpatentable over **Horowitz** in view of **Shoff** in view of **Boyer** in further view of **Carden**, U.S. Patent No. 6,996,627; and

- Claims **11 and 12** were rejected under 35 U.S.C. 103(a) as being unpatentable over **Horowitz** in view of **Shoff** in view of **Boyer** in further view of **Yamato**, U.S. Patent Application Publication 2002/0127000.

Applicants have amended claims 7–9 to correct minor typographical errors, but otherwise traverse the rejections for the same reasons articulated in the last response.

Response to Examiner's "Response to Arguments" Section

The present Non-Final Office Action is responsive to Applicants' previous Amendment and Request for Continued Examination. On pp. 2–4 of the Office Action, the Examiner provided a response to the arguments previously made by the Applicants.

On page 2, the Examiner summarized what subject matter each of the primary references contributed to the combined disclosure for obviating the present independent claims as follows:

Horowitz:
- Discloses a system allowing a user to reserve a program for recording area;

- Discloses that the system saves the recording information of the program and also has the capability of requesting and receiving updates;

- Lacks a teaching of the reservation being made on a server; and

- Lacks a teaching of the recording information including a link to the servers for updating the recorded information.

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Shoff:

- Fills Horowitz's deficiency of the record file having a link to the update server.

Boyer

- Discloses a server-based reservation.

Applicants note that the primary arguments previously submitted related to the motivations suggested by the Examiner to combine these references and arrive at the present invention. In the present claim 1, an address to an update server is provided to the access terminal upon selection of an audiovisual content to be recorded along with other information pertaining to the selected audiovisual content.

This permits *at least* one beneficial function that is not disclosed by the combination of references cited by the Examiner in combination: it permits an address or addresses of the update server to be changed rapidly and with little difficulty because this information is provided at a time when a particular audiovisual content is selected. Furthermore, at a more fundamental level, the present invention does not deal simply with processes and data for enhancing program content or program content-related information, but rather it deals with data affecting operation of the system, or, in other words, deals with system/procedure-related data and its ability for timely and accurate information and procedure to be provided to an access terminal.

Horowitz does appear to be the most pertinent reference, as it discloses a (client-side) system via which a user who has requested to record a program can contact one or more EPG update service providers in order to determine if the time information for the requested program has changed so that the recording of the program can ensue in accordance with updated information.

Applicants have previously asserted that there is a difference between the client-side implementation of Horowitz and the server-based implementation according to Boyer, and that simply combining Horowitz and Boyer fails to teach or suggest a server-based implementation as provided by the present invention.

In the bottom carryover paragraph of the Office Action, on p. 2, the Examiner agreed with Applicants' arguments on p. 9, ¶ 4 that Horowitz does not teach the same recording method as the application. The Examiner indicated that this limitation was covered by bringing in the

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Boyer reference that teaches an online EPG. The Examiner indicated that this online EPG of Boyer could be used to modify the EPG resident at the client device in Horowitz, thereby covering the limitation.

However, the Examiner ignores the motivation to combine. And, of significance, the Examiner ignores a relevant timing issue (at what point in time is current information as to the location of the update server obtained) that is present independent claims. First, Boyer is primarily directed to a system for providing dynamic information regarding events in progress that are being televised. The dynamic information may be linked with related static information in the media library and/or the data server to provide the user with additional information pertaining to the events in progress. The Web server provides the static and dynamic information to the user's multimedia system via an Internet communications link. (Boyer, 2:36–44). The user can obtain additional information on a selected program from a listing by accessing an associated web page. (Abstract).

The Examiner, in commenting (bottom carryover paragraph on p. 3 of the Office Action) on Applicants prior arguments on p. 11, ¶ 4, noted that Horowitz already teaches the relevant aspect of recording, and that Boyer is provided to modify Horowitz's user-based EPG. However, Applicants reassert that there remains a lacking of motivation to combine Horowitz and Boyer. There is a nexus between the recording function and the client- or server-based implementation such that these cannot be analyzed in isolation, as the Examiner has done.

Although Boyer mentions an ability to record in passing (5:58–60), there is clearly nothing discussed regarding any form of scheduling of recording or the handling of information related to recording. The most that can be gleaned from the disclosure of Boyer regarding recording is that the system has an ability to record the program that is currently being viewed. Thus, any server-based selection disclosed in Boyer does not pertain to the recording of information, but rather for the provision of additional or supplemental content that is associated with a particular presentation that a viewer wishes to see.

As to the timing of the receipt of information about the updating server, the mere disclosure of a server-based EPG in Boyer, absent any disclosure related to the scheduling of recordings does little to solve the lack of teaching in Horowitz as to a server-based EPG, and how and when it would get information relevant to the update servers themselves.

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First of all, lacking any discussion pertaining to scheduled recording, Boyer cannot be relevant for any aspect of the "updating" as there is nothing in Boyer to update. While Boyer does discuss server-based program selection from a server-provided EPG, it fails to deal with how data records would be formatted, where they would be stored, how they would be utilized, etc. These are all issues that would have to be disclosed, and not simply the mere fact that Horowitz is client-side, Boyer is server side, so one just simply needs to combine the two.

In Horowitz, the EPG is downloaded to the client ([0018]). Clearly, the client has some means of knowing how to contact one or more of the EPG update providers ([0051]), but Horowitz is entirely silent as to how the update server contact information is obtained. For example, does the client in Horowitz maintain a single address to an EPG update service that knows how to contact a plurality of EPG update service providers, or are the plurality of addresses to the different update service providers maintained on the client computer? If the latter, are the plurality of addresses to the update server updated on a periodic interval, upon each downloading of the EPG to the client computer, or only when a show to be recorded is selected by the user, or at some other timing? If the EPG update service provider addresses are provided to the client at any other time than when the show to be recorded is selected by the user (and this latter is only apparent when considering the disclosure of the present application), then the information could be stale, and an additional communication and processing burden could be placed on the client for obtaining the addresses of update service providers for content in which the viewer has no interest in recording.

The Examiner noted, in the bottom carryover paragraph on p. 3 of the Office Action, disagreement over prior Applicant arguments regarding motivation. The Examiner stated:

> Having the software at the Headend [server side] reduces cost
> in the long run. Since the software will be all in one location,
> over time, the cost to upgrade multiple devices will be greater
> than just upgrading in one location.

Applicants do not disagree that, under some scenarios, costs could be reduced with a server-based architecture. However, there are many scenarios in which costs would be increased with such an architecture as well. There are a large number of variables to consider, when determining what architecture is appropriate and if a server-based architecture were always preferable over a client-based architecture, then Horowitz, having a filing date of May 14, 2002, and having a client-based architecture, would have clearly been advocating a disfavored

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architecture, particularly in light of Boyer's server-based architecture in the patent with a priority date of June 30, 1998. Applicants' point is that in some configurations, a server-based architecture would be less expensive, and in others, a client-based architecture would be less expensive, but to assert that the server-based architecture *is* cheaper and therefore provides the motivation for implementing such an architecture represents a contrived motivation that is not supported by fact or reason.

The Examiner, on p. 3, addressed Applicant's previous arguments on p. 9, ¶ 5 and p. 11, ¶ 1 of the last response, noting that Shoff teaches (Fig. 3) a system in which a system that has files provides a specific link for each program, the links being directed to servers with more information on the programs.

The Examiner suggested that since Shoff shows links to sites other than those directly associated with the content of the specific program (e.g., content associated with a network such as Fox or NBC), that this contradicts the arguments Applicants previously made on p. 11, ¶ 1, namely, those related to claim 1 disclosing a link relating to process- or procedure-related data.

Applicants note that in all of the instances of prior art, including Shoff, any of the pointers associated with the program data itself are associated with content, be it directly (information associated with a specific show) or indirectly (information associated with a show series, such as the trekkicollectables.htm in Shoff, Fig. 3, or information associated with a show network) and this information is directed at the viewer of the show in some manner.

But whether the additional content relates directly or indirectly to the content of the show itself, this is fundamentally different than the process-oriented information pertaining to the update servers, which is an important characteristic for the claims. The links in the prior art references are directed to content that is of interest to a viewer. In the present case, the update information is related to the recording process itself and is thus procedure-based, not content-based—this serves to distinguish the present invention from the combination of prior art in a non-obvious manner.

The Examiner stated on p. 3 in ¶ 2:

> Examiner still stands by the fact that the burden is reduced by
> having a specific URL to go to as compared to a case when the
> system just has a keyword and has to conduct a few searches in
> order to find relevant websites.

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Applicants agree with the Examiner that the burden _would be increased_ if, in fact, a keyword-based search were the mechanism used in order to find the relevant (update service?) website. However, the mechanism (keyword search) suggested by the Examiner: 1) is not disclosed anywhere in any of the references cited by the Examiner; 2) would appear to be manually implemented and require considerable effort on the part of the viewer; and 3) would tend to suggest even more strongly that the prior art was cumbersome and unwieldy, and that the present mechanism permitting a much more efficient implementation was not obvious from the prior art.

In the first full paragraph of the Office Action, on p. 4, the Examiner stated:

> In response to applicant's arguments on page 12, concerning claim 6, Horowitz teaches, in paragraphs 0034–0037, a loop that has values x and y that correspond to the start time of a program. These values are used to check for updates and the checks are done in loops with subsequent loops having x and y values closer to program start time. Horowitz [0036] gives a description of the loop.

Applicants respectfully note that claim 6 requires that the update request is sent _increasingly_ often. In paragraph [0034] of Horowitz, a disclosure is provided where an exemplary request is sent by some amount X prior to an event time. In the example, X = 15 min. If the client clock is at or has passed time X, then an update request is sent.

In paragraph [0036], Horowitz discloses that a further threshold Y, which is smaller than X, can be provided such that a further query is made when the client clock is at or has passed time Y. Horowitz then describes how this process can be repeated. Horowitz then states:

> In the repetition of process 300, the threshold time X and Y can be set so as to be significantly separated from the scheduled start and/or stop times of a program, or so as to be immediately proximal to the start and/or stop times of the program.

This does not disclose an increasingly often update request. If, as in the example, X is 15 min., then it is possible to define Y as 13 min. and meet the disclosed timing requirements. If further iterations of X and Y include 11 min., 9 min., 7 min., 5 min., etc. which are consistent with what is disclosed by Horowitz, then the requests are simply sent at equally-spaced intervals, and not "increasingly often" as described by the claim. In theory, the repeating X, Y times could be 15, 14, 12, 9, 5 based on the disclosure of Horowitz, which is actually sending out the update

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request _decreasingly_ often. The point is that the disclosure of Horowitz, while indicating that more than one update request can be sent out prior to the event, does not provide any clarity as to whether the update request is sent _increasingly_ often... only that more than one can be sent.

Since Applicants maintain their position from the last office action, the responses, with minor changes to reflect page numbering, etc., are repeated below.

35 U.S.C. §103(a) Obviousness of Claims 1–6 and 13–16 by Horowitz in view of Shoff and Boyer

1.   The combination of Horowitz, Shoff, and Boyer does not obviate independent claim 1 since Shoff and Boyer contain insufficient disclosures related to the inclusion of address information inserted into a record and the selection of a server-based program to record to supplement deficiencies in the teaching of Horowitz, and the asserted motivations to combine are inaccurate.

In the Office Action, on pp. 4–6, the Examiner rejected independent claim 1 as being obvious over the combination of Horowitz, Shoff, and Boyer. The Examiner identified how various elements of claim 1 were disclosed by Horowitz, but noted that the teaching of Horowitz lacked two claimed features: the inclusion of the address of the update server in the record file that is returned to the access terminal, and the selection of the audiovisual content to be recorded being performed on the presentation server.

The Examiner noted, on pp. 5–6:

> Horowitz does not teach wherein the record file further includes the address of an update server, a step of the access terminal sending the request to the address included in the record file.
>
> In an analogous art, Shoff teaches wherein the record file further includes the address of an update server, a step of the access terminal sending the request to the address included in the record file (data fields corresponding to a program having link to server that has additional information on the specific program which can be accessed on request, Col. 6, lines 8–26, Fig. 3).
>
> Therefore, it would have been obvious to one of ordinary skill in the art to modify Horowitz' conflict management system by including a link to server with additional information as

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> described in Shoff's supplemental content system for the
> advantages of reducing the burden placed on processors for
> finding relevant information source.

In the prior Office Action of April 30, 2008, the Examiner clarified his position by stating, on p. 2 under the "Response to Arguments" section:

> In response to applicant's arguments on page 7, paragraph 1 in
> regards to the server address being included in the record file;
> Horowitz already teaches a system that receives program
> information, request updates and receives updates. Schoff is
> brought in solely for its teaching about a sent file that contains
> a URL to a server.

The Examiner then stated, on p. 4:

> The combination of Horowitz and Shoff do not teach wherein
> the selection is made on a presentation server.

> In an analogous art, Boyer teaches do not teach [sic] wherein
> the selection is made on a presentation server (internet based
> EPG, col. 3, lines 1–2).

> Therefore, it would have been obvious to one of ordinary skill
> in the art at the time of the invention to modify the combination
> of Horowitz and Shoff buy including a system that allows
> remote access to the program guide as described in Boyer's
> internet based EPG system for the advantages of reducing the
> cost of the system and providing a central location for
> accessing the EPG.

Applicants respectfully disagree that one of ordinary skill in the art would turn to Shoff's disclosure of including a content-oriented pointer embedded in a client-generated data record in combination with Boyer's disclosure of a selection of a linked web page within a server-based program guide to solve the deficiencies of the teachings of Horowitz to arrive at the present claim 1, with claims as amended.

Claim 1 requires that the record file of the selected audiovisual content that includes the address of the update server is provided in response to the selecting on the presentation server.

Claim 1 encompasses a technique used to schedule a recording of program contents that comprises selecting the content to record on the presentation server and, in response to this selection, providing the terminal with a record file.

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In contrast, in Horowitz, the technique used for scheduling the recording of program contents comprises providing the terminal with EPG data relating to the content, the selection of the content to record and the generation of a request/file to record this content being performed locally in the terminal (see paragraph 0026, which states, "Process 300 then moves to block 304 where a viewer requests that a certain program (i) be recorded by the client device"; and paragraph 0027, which states, "then process 300 moves to block 312 where the request to record the content is stored in an event programs table"). Thus, the recording method of the invention and the recording method of Horowitz are based on two very different approaches.

According to claim 1, the record file for recording program content contains the address of an update server. This permits an association of a specific update server to a given program content to be recorded. In other words, different update servers can be used respectively for different contents to be recorded. The invention thus permits changing of the update server according to the specific program content to be recorded. This adaptation could not be performed when the address of the update server is pre-stored in the terminal.

Because of this, different TV servers (for example, the CNN server and the BBC server) can have their respective update servers (an update server could be integrated in the corresponding TV server or be distinct from the TV server and connected to it). In this case, when an access terminal selects, on the presentation server, two (or more) program contents to be recorded, one from CNN and one from BBC, for example, the presentation server can then provide the access terminal with the address of the CNN update server, in the record file for the CNN content, and with the address of the BBC update server, in the record file for the BBC content.

Thus, for checking if the CNN content and the BBC content are re-scheduled, shifted or cancelled, the terminal can send two different requests respectively to the CNN update server and to the BBC update server. This would allow an update server specific to one TV channel to update directly the schedules for their contents to be recorded of the TV channel, without requiring going though an intermediate update server that must first be updated by the TV server. In this way, the updating information can be "up-to-the-minute" and more reliable, which is not possible with the Horowitz scheme.

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In Horowitz, the program data is collectively retrieved by the client device, and the selection of the program to record is made at the client device. See Horowitz paragraph [0026]. Whatever the origin of the address of the EPG Update Database server is in Horowitz (and Horowitz is silent on this point), the selection of the program to record on the client, as disclosed by Horowitz, means that any change in a location of the update server cannot automatically be adjusted at the time (or immediately before) of recording selection, as can be done with the present invention.

By using a server side selection of the recording, and by associating the address of the update server with the record of the program to be recorded, a much more flexible approach to updates is permitted than was contemplated in the prior art references cited by the Examiner, even collectively. Advantageously, and using the method and system claimed by the present invention, each of the content providers can direct, on a per-show basis, and at a time immediately before the user selects a program to record, change the address of the update server to accommodate, e.g., a server that is down, a server that has more available bandwidth/processing power, etc. In other words, the advantageous design of the present invention permits an update of the update server itself, which is not achievable with any of the prior art references.

The pointer mechanism that the Examiner indicates is disclosed in Shoff to show a teaching that a sent file can contain a URL to a server is not sufficient to fulfill the deficiency in the teaching of Horowitz on this point, because the teaching in Shoff relates to a pointer for media content-related data (the supplemental content/enhanced content server 52, 54 in Shoff—Figure 2). The address of the update server, as claimed in claim 1, is process- or procedure-related data that is not associated with the media-content itself. Thus, one of ordinary skill in the art would not turn to a disclosure of a media content-related data pointer when trying to address process issues such as where to go for update data.

Furthermore, the Examiner's stated motivation to combine Shoff and Boyer with Horowitz is incorrect as well. The Examiner indicates that one would be motivated to modify Horowitz with the teaching of Shoff and Boyer "for the advantages of reducing the cost of the system and providing a central location for accessing the EPG."

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Applicants have addressed the motivation related to cost reduction above, and note that, as discussed above, a decision to implement a central location for accessing the EPG in a server-based architecture involves many interrelated issues and questions that are not fully addressed by a consideration of a server-side-based architecture taken in isolation.

The Examiner included the Boyer reference as teaching that a selection is made on a presentation server (citing the Internet-based EPG at 3:1–2 in Boyer). Boyer states, in the cited section:

> Because the Internet television program guide system with embedded real-time data may be provided using a web site having a number of linked web pages...

Although clearly a web-based program guide system having linked web pages would logically permit some form of selection (such as selecting one of the links to the web page), Boyer is completely silent on using such a mechanism in the context of recording, and thus its disclosure is insufficient to fulfill the deficiency in the teaching of Horowitz related to a server-based selection related to the recording of a program.

Furthermore, the Examiner indicated that a part of the motivation to combine the teaching of Boyer with that of the combined Horowitz and Schoff references would be to reduce costs of the system. As discussed in more detail above, a client-server-based architecture does not necessarily reduce costs, and can cost more in many cases since the server architecture (at least the server architecture disclosed by Boyer) must support software that provides a user interface into the server. The additional server software of Boyer to support the user interface functions would serve to increase the costs if combined with Horowitz, not reduce costs.

As noted by MPEP §2141.02(V), the invention as a whole must be considered in undertaking the obviousness inquiry and not look only to the subject matter that is literally recited in the claim in question. The consideration of the invention as a whole does not permit merely locating individual elements of the claim in various pieces of prior art—doing so reflects the use of hindsight that is expressly forbidden in the obviousness determination.

Claims 2–6 and 13–16 are similarly not obviated by the combination of Horowitz, Shoff, and Boyer by virtue of their dependence from independent claim 1.

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    2. In addition to the arguments provided above, claim 6 is not obviated by the combination of Horowitz, Shoff, and Boyer because there is no teaching or suggestion of sending a request to update increasingly often as the date and time for recording approaches.

In the Office Action, on pp. 5–6, the Examiner rejected dependent claim 6 as being obvious over the combination of Horowitz, Shoff, and Boyer, stating:

> As per claim 6, the combination… [teaches] a method
> according to claim 1 of recording audiovisual contents
> broadcast according to a schedule, wherein, during the selection
> step a single audio visual content is selected, and wherein the
> terminal sends the request to update the record file increasingly
> often as the date and time for recording the selected audiovisual
> content approaches (regular updates [0031], lines 7–15).

Applicants can find no teaching in Horowitz related to sending a request to update increasingly often. All that is provided in this disclosure are examples that show a spaced pair of requests that are made, but nothing showing increasingly often requests. In the event that the Examiner maintains this rejection, Applicants respectfully request that the Examiner specifically indicate how Horowitz discloses *increasingly often* requests.

For these reasons, Applicants respectfully request that this 35 U.S.C. §103 rejection be withdrawn from the application.

35 U.S.C. §103(a) Obviousness of Claims 7–12 over Horowitz, Shoff, and Boyer in view of Some Combination of Carden and Yamato

    3. Applicants rely upon the above arguments with respect to the remaining dependent claims, and assert that none of the additional references supplants the deficiencies identified above with respect to the combination of Horowitz, Shoff, and Boyer.

In the Office Action, on pp. 8–11, the Examiner combined Horowitz, Shoff, and Boyer with Carden and Yamato in establishing an obviating combination of references for various dependent claims in the present application. Without addressing the specifics of the additional references on the merits, Applicant relies upon the above arguments and asserts that the disclosures of each of Carden and Yamato, alone or in combination, does not serve to solve the deficiencies of the combined Horowitz, Shoff, and Boyer references. The Examiner has cited Carden and Yamato for purposes related to the specifics of the dependent claims.

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For these reasons, the Applicant asserts that the claim language clearly distinguishes over the prior art, and respectfully request that the Examiner withdraw the §103 rejection from the present application.

CONCLUSION

The application is considered in good and proper form for allowance, and the Examiner is respectfully requested to pass this application to issue. If, in the opinion of the Examiner, a telephone conference would expedite the prosecution of the subject application, the Examiner is invited to call the undersigned attorney.

Respectfully submitted,

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Date: March 3, 2009

CH01/ 25299776.1

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